Supplementary Table S1. Oligonucleotide primers used in the current study.

Sequence (5'→ 3')	Purpose
CCCAAGGTTGTTATGCTTGA	Primer P9, forward primer for Quantitative PCR of *bb0238*
ATCAGCATCGGCCTTAGATG	Primer P10, reverse primer for Quantitative PCR of *bb0238*
TTGCTGATCAAGCTCAATATAACCA	Forward primer for Quantitative PCR of *B. burgdorferi flaB*
TTGAGACCCTGAAAGTGATGC	Reverse primer for Quantitative PCR of *B. burgdorferi flaB*
AGAGGGAAATCGTGCGTGAC	Forward primer for Quantitative PCR of mouse *β-actin*
CAATAGTGATGACCTGGCCGT	Reverse primer for Quantitative PCR of mouse *β-actin*
GGTATCGTGCTCGACTC	Forward primer for Quantitative PCR of tick *β-actin*
ATCAGGTAGTCGGTCAGG	Reverse primer for Quantitative PCR of tick *β-actin*
AAT*GCGGCCGC*ATTCAGCTTAACACTGATCC	Primer P1, 5'PCR of the left arm for constructing *bb0238* mutant. A NotI site (italicized) is attached for the purpose of cloning.
AAT*GGATCC*AGTCTTTAAAAATTTCAAAA	Primer P2, 3'PCR of the left arm for constructing *bb0238* mutant. A BamHI site (italicized) is attached for the purpose of cloning.
AAT*CTCGAG*CTATAAATAATTATAATACA	Primer P3, 5'PCR of the right arm for constructing *bb0238* mutant. A XhoI site (italicized) is attached for the purpose of cloning.
AAT*GGTACC*TTACACCCAATCCCCATCCA	Primer P4, 3'PCR of the right arm for constructing *bb0238* mutant. A KpnI site (italicized) is attached for the purpose of cloning.
TCCAACATTGCTAATAACAG	Primer P5, 5'PCR primer for the detection of intended integration of the *pflaB-Kan* cassette in the *bb0238* locus
CGCTCATTCTTGCTGCTGTG	Primer P6, 3' PCR primer for the detection of intended integration of the *pflaB-Kan* cassette in the *bb0238* locus
CAGGAATTACTGCAACCATCAA	Forward primer for PCR of *bb0237*
CAGAGGATGATAATAATTGGTTTT	Reverse primer for PCR of *bb0237*
GGCATTTCCAGTCCAAATTA	Forward primer for PCR of *bb0239*
TAATTCTGCGCTCAACTTCA	Reverse primer for PCR of *bb0239*
GGTTGCATTCGATTCCTGTT	Primer P7, Kanamycin internal forward primer
ATTCCGACTCGTCCAACATC	Primer P8, Kanamycin internal forward primer
ATT*CTCGAG*TCAATTTATGGAAGACAAAA	Primer P12, 5'PCR primer of the right arm for *bb0238* complementation. An XhoI site (italicized) is attached for cloning.
CCG*CTCGAG*CGAGCTTCAAGGAAGA	Primer P13, forward primer for amplification of *PflgB-aadA* cassette in pKFSS1. A XhoI site (italicized) is attached for the purpose of cloning.
ACGC*GTCGAC*ATTATTTGCCGACTACC	Primer P9, reverse primer for amplification of *PflgB-aadA* cassette in pKFSS1. A SalI site (italicized) is attached for the purpose of cloning.
CG*GAATTC*AAAACGCCTCCAGAATCAAGA	Forward primer for cloning of *bb0323* in pGBKT7. An EcoRI site (italicized) is attached for the purpose of cloning.
AA*CTGCAG*TTATTTGGCAGGAATTATTAT	Reverse primer for cloning of *bb0323* in pGBKT7. A PstI site (italicized) is attached for the purpose of cloning.
AAT*GAATTC*CAAGGTAGTTCTTCTTATAT	Forward primer for cloning of *bb0238* in pGADT7 plasmid. An EcoRI site (italicized) is attached for the purpose of cloning.

CC*GCTCGA*GTCAATTTATGGAAGACAAAAACCA	Reverse primer for cloning of *bb0238* in pGADT7 plasmid, and production of recombinant BB0238 in *E. coli* An XhoI site (italicized) is attached for the purpose of cloning.
CG*GGATCC*CAAGGTAGTTCTTCTTATATTGATAA GCAA	Forward primer for recombinant BB0238 production in *E. coli*. A BamHI site (italicized) is attached for cloning.